

It Is the End of the Illegible Rx

Electronic Prescriptions Can Flag Interactions, Reduce Errors

By ANN CARRNS

PAJET KIRK of Knoxville, Tenn., used to misplace prescriptions before she arrived at her pharmacy. Not anymore. Now her doctor writes paperless prescriptions, which can't slip behind a car seat or be misplaced.

Like Ms. Kirk's physician, more doctors are beginning to use computer systems to transmit automatically prescriptions to drugstores, eliminating the need for those pesky slips of paper with indecipherable writing. An estimated 6% of doctors prescribe electronically, but that is expected to more than triple to nearly 20% during the next three years, according to consultants Fulcrum Analytics Inc. and Deloitte Research. Many medical professionals say electronic prescriptions, unlike some other widely hyped but slow-to-arrive changes in medical technology, promise real improvement over the old-fashioned doctor's scribble.

Reducing Medical Errors

A push by Leapfrog Group, a big employer coalition devoted to reducing medical errors, is expected to help boost electronic-prescribing during the next several years. Leapfrog, which has recommended computerization in hospitals, is devising recommendations for improving patient safety in doctors' offices. Paperless prescribing is likely to top the list, says one of the specialists working on the project.

Unlike handwritten orders, electronic prescriptions are clearly legible, reducing the chance of a pharmacist misreading the name of the drug or the dosage. Equally important, most computerized systems can check automatically to see if a new drug might react dangerously with the patient's other medications.

At a busy Summit Medical Group practice in Knoxville, family doctor Jeffrey Drinnen uses his wireless hand-held computer for prescriptions, tapping the screen to order medications. If the patient has a history of allergic reactions to certain drugs, it warns him by flashing a red screen. The software, marketed by Allscripts Healthcare Solutions Inc., alerts him with a red frown face if the medicine isn't covered by a patient's insurance. He can then decide to order an equivalent drug that the plan prefers—prompting a green smiley face. That potentially saves the patient money, and it saves the nursing staff from fielding a phone call from the pharmacy later in the day to fix the problem.

"Electronic-prescribing" is a bit of a misnomer. Most systems generate a fax that the drugstore receives on paper, rather than by e-mail or other electronic means. When Dr. Drinnen taps the "send" button on his hand-held, the system zaps the order to a server in Summit Medical's main office, which triggers a fax. Some systems don't go that far: Some doctors at the University of South Florida Health Sciences Center in Tampa began writing electronic prescriptions a year ago, but they still print out hard copies for patients to carry to the drugstore. Even without the electronic transmission, the printout has the plus of being

legible and of having gone through the drug-interaction checks.

Pharmacies Get New Technology

While several states still prohibit electronic prescriptions, either because their prescribing laws haven't caught up with advances in technology, or because they are wary of the potential for abuse or fraud, more pharmacies are getting the necessary technology to receive digital drug orders. A consortium called RxHub is working to create standard electronic-prescription formats. And at least one East Coast chain, Royal Ahold's Giant Food Inc. of Landover, Md., has started accepting electronic-prescriptions at its pharmacies through a Web-based messaging system. Pharmacies that can't accept digital delivery can rely on the fax machine.

To ensure the prescriptions are legitimate, drugstores say they look for the doctor's electronic signature, which is stored digitally, and make sure they recognize the fax number.

Despite Dr. Drinnen's enthusiasm, at least one of his patients insists on paper prescriptions, after getting frustrated by repeated problems with the electronic version at his pharmacy. His drugstore's busy staff, it seems, often failed to replenish the fax paper. Ms. Kirk, the Knoxville woman, says the first time her doctor wrote an electronic order, she had to wait longer than usual to pick up her medicine. The drugstore was used to getting refill orders by fax, but not new prescription requests.

But most patients say that once pharmacies adapt to the system, electronic prescriptions are superior. Heather Bowers, one of Dr. Drinnen's patients, used

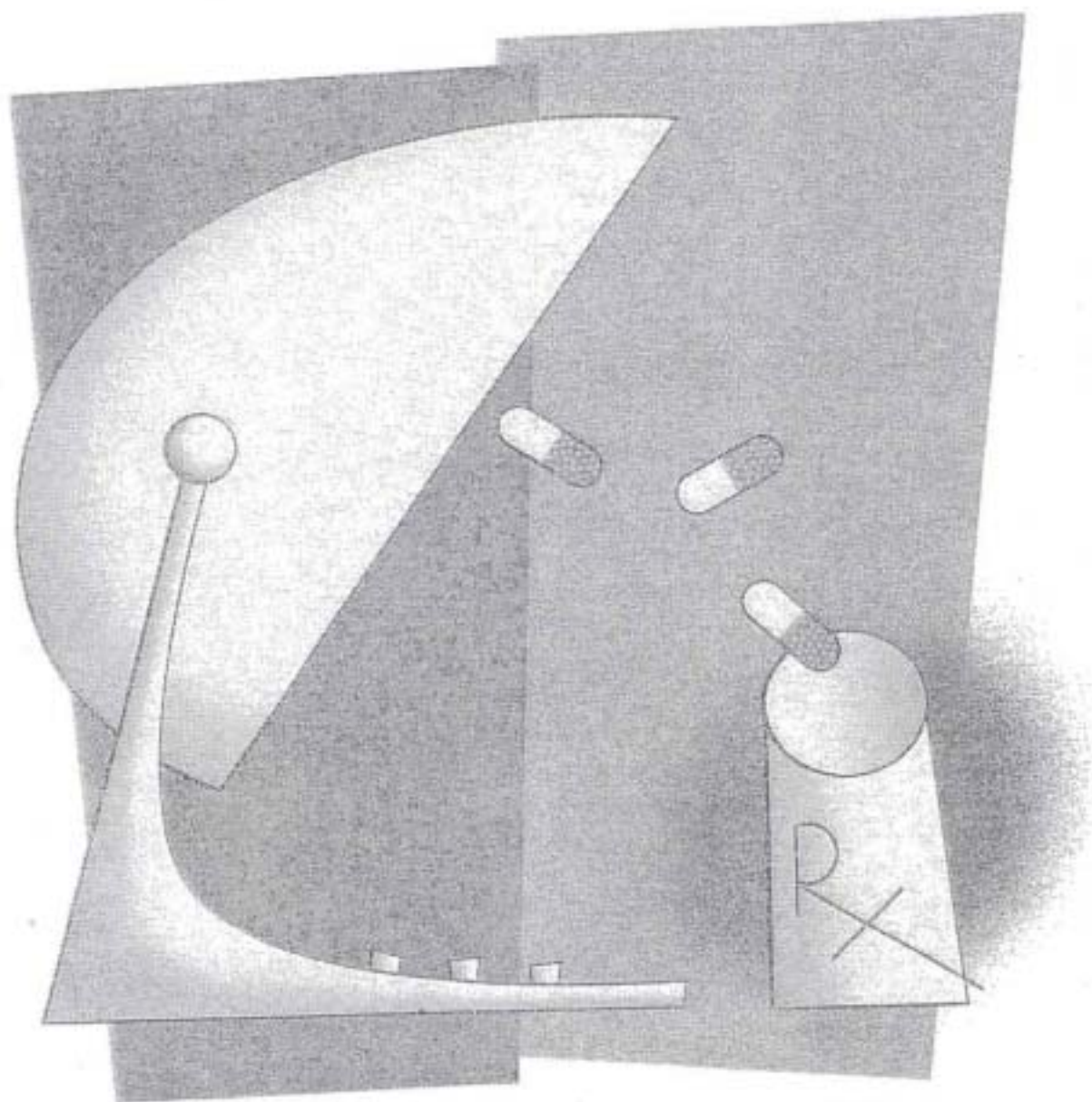
to grudgingly visit the pharmacy twice: once to drop off the prescription, and again when it was filled. Now, her medicine is ready when she arrives the first time. "It just saves so much time," the 26-year-old graduate student says.

Privacy Concerns

Patients looking for a doctor who uses electronic prescriptions might want to ask how the process works in the doctor's office. Despite the convenience of hand-held devices, computers with full-size monitors make it easier for patients to see what the doctor is doing. Kokomo Family Practice in Kokomo, Ind., uses such a system marketed by McKesson Corp. "Patients can look at the screen with the doctor, almost like it's a blackboard," says Kokomo's Dr. Keith Ennis. "They can see the drug, see how it's spelled, see the dosage."

Although most prescribing systems safeguard patient privacy with password-restricted access and secure-transmission features, patients should also ask if the data stored by the system is used for outside purposes. Some system vendors seek to collect information on doctors' prescribing habits—a process dubbed "data mining"—for sale to drug companies or health insurers. Patient names and other identifying details are removed from such data, but some doctors bar any use of the information at all.

That is the case at the Kaiser Permanente medical office in Woodbridge, Va., where doctors use ePhysician Inc.'s hand-held prescribing system. Ephysician, based in Mountain View, Calif., houses the prescription data on its servers, but the Kaiser doctors don't let the company make use of the information. "We're careful not to do anything with their data whatsoever," says Stuart Weisman, the company's chief executive.



Bill Schwartz